(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/090527 A1

(51) International Patent Classification[7]: C10L 1/00

(21) International Application Number: PCT/EE2005/000004

(22) International Filing Date: 15 March 2005 (15.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
P 200400072 23 March 2004 (23.03.2004) EE

(71) Applicant *(for all designated States except US)*: **AS LASER DIAGNOSTIC INSTRUMENTS** [EE/EE]; Kadaka tee 113A, EE12915 Tallinn (EE).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BABICHENKO, Sergey** [EE/EE]; Kuslapuu tn. 9, EE12012 Tallinn (EE). **DUDELZAK, Alexander** [CA/CA]; 48 Sheahan Crescent, Nepean, Ontario K2H 8M2 (CA). **PORYVKINA, Larisa** [EE/EE]; Trummi põik 15a-25, EE12616 Tallinn (EE).

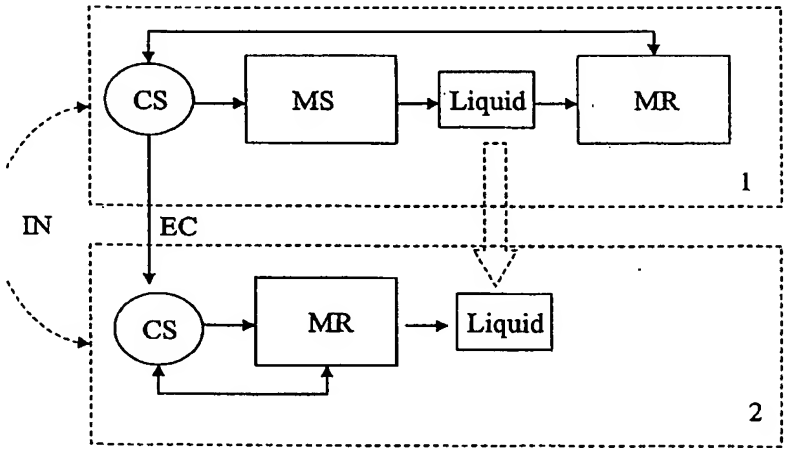
(74) Agents: **MUTT, Andres** et al.; Box 3136, EE10505 Tallinn (EE).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD FOR AUTOMATIC ENCRYPTED MARKING AND IDENTIFYING THE LIQUIDS



(57) Abstract: The invention provides a method for automatic encrypted marking of liquids and for identifying liquids marked by using this method. For marking certain number of markers is selected and for every marker a random number is generated, which define the amount of a marker used. Based on the number of markers, their measured concentrations and the relation of markers concentrations in the marked liquid, a specific marking code is compiled, characteristic only for this liquid. The marking code is encrypted and delivered to an authorized user. The encrypted marking code is decrypted and for identifying the liquid the original parameters contained in the marking code are compared with parameters actually measured on-site. This identification is carried out automatically in real time without any need for laboratory analyses, thus practically excluding human factor in both the marking and identification processes.

WO 2005/090527 A1

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

Published:

— *with international search report*

— *with amended claims*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.